

Cat. No. 13-1287  
**OWNER'S MANUAL**

Please read before using this equipment.

# SYSTEM 740

**Mini Stereo Component System**

**OPTIMUS®**

## FEATURES

Your Optimus System 740 Mini Stereo Component System offers, in one compact package, all of the versatile features that you need for excellent stereo sound and entertainment.

The System 740 includes an AM/FM stereo tuner, a dual cassette recorder with auto-stop, speakers, and a 3-band frequency equalizer.

Its features include:

**Auto-Stop** — to protect the tape and tape-handling parts, automatically stops the cassette tape when it finishes.

**Multiple Source Recording** — lets you record from the radio, another cassette tape, or an external audio source.

**Automatic Level Control (ALC)** — automatically adjusts the recording level.

**Consecutive Tape Play** — plays one side each of two tapes, back to back.

**Normal or High-Speed Dubbing** — lets you copy tapes at normal or twice the normal speed.

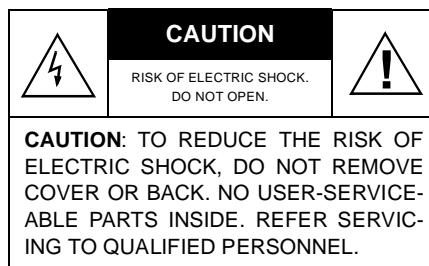
**3-Band Frequency Equalizer** — lets you adjust the sound to your preference and your room's unique acoustics.

**E-Bass Control** — boosts low tones for an emphasized bass sound.

**Auxiliary Input Jacks** — let you hear an external audio source through your system.

**Supplied Speakers** — let you immediately begin listening to your system.

**Warning:** To prevent fire or shock hazard, do not expose this product to rain or moisture.



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

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## CONNECTIONS

**Caution:** Complete all other connections to the System 740 before you connect it to power.

### CONNECTING THE SPEAKERS

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1. Insert the right speaker wire's plug into the **4 OHM SPK R** (right) speaker jack on the back of the System 740.
2. Insert the left speaker wire's plug into the **4 OHM SPK L** (left) speaker jack on the back of the System 740.

### CONNECTING AN AUXILIARY AUDIO SOURCE

To connect an auxiliary audio source, such as a TV, CD player, or cassette deck, plug the audio source's left and right LINE OUT audio wires into the **AUX L** (left) and **AUX R** (right) input jacks on the back of the System 740.

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See "Using an Auxiliary Audio Source" on Page 14 for how to operate an external audio source with the System 740.

### CONNECTING AN EXTERNAL ANTENNA

Your System 740 has two antennas. The AM antenna is built-in, and the FM antenna is in the power cord. For improved reception, you can attach an FM or TV antenna (not supplied) to the 75-ohm or 300-ohm terminals on the back of the system. Before you install an external antenna, be sure to disconnect the built-in FM antenna by loosening the upper right antenna terminal and sliding out the U-shaped connector. Then follow the instructions supplied with the antenna.

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If you have an outside VHF TV antenna, you can use a signal splitter to connect this system and a TV to the same antenna. Your local RadioShack store has a wide selection of antennas and connectors.

## CONNECTING POWER

To connect power, after making all other connections, plug your system's power cord into a standard AC outlet.

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**Caution:** Your system's power cord has a polarized plug (one blade is wider than the other). If you have difficulty inserting the plug into the outlet, do not force it. Turn the plug over and try again.

## USING HEADPHONES

To listen without disturbing others, you can connect a pair of 1/8-inch plug stereo headphones (not supplied) to the System 740. Your local RadioShack store has a wide selection of stereo headphones.

To connect headphones, plug the headphones' 1/8-inch plug into the **PHONES** jack on the front of the System 740.

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**Note:** Connecting headphones automatically disconnects the System 740's speakers.

## Listening Safely

To protect your hearing, follow these guidelines when you use headphones.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable listening level.
- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

## BASIC OPERATION

### TURNING ON/OFF THE SYSTEM

Press **POWER** to turn on the system. The POWER indicator lights.

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To turn off the system, press **POWER** again. The POWER indicator turns off.

### ADJUSTING THE BALANCE

To adjust the sound balance between the left and right speakers, turn **BALANCE** toward L (left) or R (right).

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### USING THE FREQUENCY EQUALIZER

You can use **FREQUENCY EQUALIZER** to customize the sound you hear through the speakers.

Each of the three controls lets you adjust the level in a specific frequency range. Slide the control up to boost, or down to reduce the level. If you set the control to the center position (**0**), the frequency is unaltered.

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**LOW** (100 Hz) — Adjusts the frequencies in the low bass range (low organ notes and bass drums). Reduces rumble or other low-frequency noise.

**MID** (1 kHz) — Adjusts the range of frequencies where the ear is most sensitive (vocals).

**HIGH** (6 kHz) — Adjusts high-frequency sounds (cymbals, flutes, and violins).

## USING E-BASS

Press **E-BASS** once for enhanced bass effects. The E-BASS indicator lights.

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Press **E-BASS** again for normal bass sound. The E-BASS indicator turns off.

## USING THE MUTE BUTTON

The MUTE button lets you temporarily turn off the sound.

Press **MUTE** to turn off the sound. The MUTE indicator lights. Press **MUTE** again to restore the sound. The MUTE indicator turns off.

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## RADIO OPERATION

1. Press **TUNER**. The TUNER indicator lights.

REO indicator lights when you receive an FM broadcast in stereo.

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2. Set **BAND** to **AM** or **FM**.

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- If FM stereo reception is weak, set **MODE** to **MONO**. The FM STEREO indicator turns off and the sound is mono, but the reception should improve.

4. Adjust **VOLUME**, **BALANCE**, **E-BASS**, and **FREQUENCY EQUALIZER** for the desired sound.

3. Adjust **TUNING** to the desired station.

### Notes:

- Your System 740 has a built-in AM antenna, and the AC power cord serves as an FM antenna. For the best AM reception, move the system. For the best FM reception, fully uncoil the power cord or connect an external FM antenna (see "Connecting an External Antenna" on Page 4).
- If FM reception is strong, set **MODE** to **STEREO** to enhance the stereo signal. The FM STE-

## CASSETTE PLAYER OPERATION

You can play a cassette tape in either cassette deck, and record tapes in TAPE 1.

play facing you, the exposed tape edge facing down, and the full reel to the left.

### LOADING A CASSETTE TAPE

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**Note:** Take up any slack in the tape by turning the cassette's hub with a pencil. If you do not remove excess slack, the tape might become tangled in the record/playback mechanism. Avoid touching the tape.

3. Close the door.

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### PLAYING A CASSETTE TAPE

#### Normal Play

1. Press **TAPE**. The TAPE indicator lights.

1. Press **STOP/EJECT** to open the cassette compartment door.

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2. Load a cassette tape.

2. Insert the cassette tape into the tape guides on the compartment door, with the side you want to

3. Press **PLAY**. The tape player plays the cassette tape until it reaches the end, then it automatically stops.

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**Note:** Press **PAUSE** to temporarily stop the cassette player. To resume play, press **PAUSE** again.

4. Adjust **VOLUME**, **E-BASS**, **BALANCE**, and **FREQUENCY EQUALIZER** for the desired sound.
5. To manually stop play, press **STOP/EJECT**. Press **STOP/EJECT** again to open the cassette compartment and remove the tape.

### Fast Forward/Rewind

Press **FAST-F** or **REWIND** to fast-forward or rewind the cassette. To stop fast-forward or rewind before the end of the tape, press **STOP/EJECT**.

### Consecutive Play

The System 740 can play the first side of a cassette loaded in TAPE 2, then the first side of a cassette loaded in TAPE 1.

1. Load the cassette you want to play first into TAPE 2 and the one you want to play second into TAPE 1.
2. Press **PLAY** on TAPE 2.
3. Press **PAUSE** and **PLAY** on TAPE 1.

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The cassette in TAPE 2 plays until it reaches the end of the side. Then TAPE 2 stops, and TAPE 1 plays until it reaches the end of the side.

To manually stop consecutive play before the tape player automatically stops, press **STOP/EJECT** on both decks.

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## RECORDING ON A CASSETTE TAPE

The System 740 can record from the radio or dub (copy) another tape. It can also record from an auxiliary audio source (see "Recording from an Auxiliary Audio Source" on Page 14).

### Notes:

- The **VOLUME**, **E-BASS**, **BALANCE**, and **FREQUENCY EQUALIZER** settings do not affect your recording. The system automatically adjusts those levels.
- Before recording, be sure the erase-protection tabs are in place on the cassette tape you are recording onto (see "Preventing Accidental Erasure" on Page 13).
- Tape quality greatly affects the quality of the recording. We recommend regular length (60- or 90-minute) cassette tapes. We do not recommend long-play cassette tapes such as C-120s because they are thin and can easily tangle. For low-noise, wide-range recordings, use normal-bias tape.

### Recording from the Radio

1. Load a blank tape (or one you want to record over) into TAPE 1.
2. Press **TUNER**.
3. Set **BAND** to **FM** or **AM**.

4. Adjust **TUNING** to the station you want to record.

**Note:** Sometimes AM broadcasts produce a hum or whistling sound that you hear while listening to a recording of them. To reduce or eliminate this sound, set **BEAT CUT** on the back of the system to the position that gives you the best quality recording.

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5. Press **PAUSE** then **RECORD**. When the selection you want plays on the radio, release **PAUSE** to start recording.
6. To stop recording, press **STOP/EJECT**.

## Dubbing a Cassette Tape

You can dub at the tape's normal playing speed or at twice the normal speed.

1. Load the cassette you want to copy into TAPE 2 with the side you want to record facing you.
2. Load a blank cassette (or one you want to record over) into TAPE 1 with the side you want to record on facing you.
3. Press **TAPE**.
4. Set **DUBBING** to **HIGH** to dub at twice the normal speed, or to **NORMAL** to dub at normal speed.

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**Note:** Normal speed dubbing produces the best quality recording.

5. Press **PAUSE** then **RECORD** on TAPE 1. **RECORD** and **PLAY** lock down.
6. Press **PLAY** on TAPE 2. TAPE 1 automatically releases **PAUSE**, and dubbing begins from TAPE 2 to TAPE 1.

### Notes:

- To skip an unwanted section during normal-speed dubbing, press **PAUSE** on TAPE 1 while the unwanted section plays. To resume dubbing, press **PAUSE** again.
- To temporarily stop recording, press **PAUSE** on both tape decks. Press **PAUSE** again to resume recording.
- To monitor the tape while it is dubbing, adjust **VOLUME** to a comfortable listening level. If you monitor the tape while high-speed dubbing, you hear a distorted sound.
- 7. Dubbing stops automatically when the cassette in TAPE 1 reaches its end. If the cassette in TAPE 2 continues to play, press **STOP/EJECT**.

To stop dubbing before TAPE 1 stops automatically, press **STOP/EJECT** on both TAPE 1 and TAPE 2.

## TAPE CARE TIPS

### Preventing Accidental Erasure

Cassette tapes have two erase-protection tabs — one for each side. To protect a recording from being accidentally recorded over or erased, use a screwdriver to remove one or both of the cassette tape's erase-protection tabs.

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If you want to record on a tape side after you have removed the erase-protection tab, place a piece of strong plastic tape over that side's erase-protection hole.

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#### Notes:

- Be sure you cover only the hole originally covered by the erase-protection tab.

- Removing the erase-protection tabs does not prevent a bulk eraser from erasing a cassette tape.

### Erasing a Cassette Tape

If you no longer want a recording, you can record over it or erase it.

To erase a previously recorded section of a tape, simply record over it.

To erase the entire cassette tape, record silence by pressing **TAPE** and recording with no tape in **TAPE 2**.

To quickly erase a tape, use a bulk tape eraser (such as Cat. No. 44-232, not supplied).

### Restoring Tape Tension and Sound Quality

After you play a cassette tape several times, the tape might become tightly wound on the reels. This can cause playback sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then completely rewind it. Then loosen the tape reels by gently tapping each side of the cassette's outer shell on a flat surface.

**Caution:** Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.

## USING AN AUXILIARY AUDIO SOURCE

If you connected an auxiliary audio source, such as a TV, VCR, a CD player, or an external cassette deck, you can use your System 740 to listen to or record from that source. (See "Connecting an Auxiliary Audio Source" on Page 4.)

### LISTENING TO AN AUXILIARY AUDIO SOURCE

1. Turn **VOLUME** to **MIN**, and be sure that the audio source's volume control (if it has one) is also set to its lowest level.
2. Press **AUX**. The **AUX** indicator lights.

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3. Operate the audio source according to its owner's manual.
4. Adjust the System 740's **VOLUME**, **E-BASS**, **BALANCE**, and **FREQUENCY EQUALIZER** for the desired sound.

### RECORDING FROM AN AUXILIARY AUDIO SOURCE

1. Turn **VOLUME** to **MIN**, and be sure that the audio source's volume control (if it has one) is also set to its lowest level.
2. Press **AUX**. The **AUX** indicator lights.
3. Insert a cassette tape into **TAPE 1**.
4. Begin play on the audio source as instructed in its owner's manual.
5. Press **RECORD** to begin recording.  
**Note:** To pause the tape during recording, press **PAUSE**. To resume recording, press **PAUSE** again.
6. To stop the tape at any time during recording, press **STOP/EJECT**.
7. Stop play on the audio source as instructed in its owner's manual.

## CARE AND MAINTENANCE

Your Optimus System 740 Mini Stereo Component System is an example of superior design and craftsmanship. The following suggestions will help you care for the system so you can enjoy it for years.



Keep the system dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Use and store the system only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Handle the system gently and carefully. Dropping it can damage the circuit boards and can cause the system to work improperly.



Keep the system away from dust and dirt, which can cause premature wear of parts.



Wipe the system with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the system.

Modifying or tampering with the system's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your system is not performing as it should, take it to your local RadioShack store for assistance.

## THE FCC WANTS YOU TO KNOW

Your system might cause TV or radio interference even when it is operating properly. To determine whether your system is causing the interference, turn off your system. If the interference goes away, your system is causing the interference. Try to eliminate the interference by:

- Moving your system away from the receiver
- Connecting your system to an outlet that is on a different electrical circuit from the receiver
- Contacting your local RadioShack store for help

If you cannot eliminate the interference, the FCC requires that you stop using your system.

## CLEANING THE TAPE-HANDLING PARTS

Dirt, dust or particles of the tape's coating can accumulate on the tape heads and other parts that the tape touches. This can greatly reduce the performance of the System 740. Use the following cleaning procedure after every 20 hours of tape player operation.

1. Disconnect power.

2. Open the cassette compartment doors on TAPE 1 and TAPE 2.
3. Press **PLAY** on TAPE 1 and TAPE 2 to expose the tape-handling parts.
4. Use a cotton swab dipped in denatured alcohol or tape head cleaning solution to clean the record/play heads, pinch rollers, capstans, tape guides, and erase head.

### Tape 1

### Tape 2

5. When you finish cleaning, press **STOP/EJECT** on TAPE 1 and TAPE 2, close the cassette compartment doors, and reconnect power.

Your local RadioShack store sells a complete line of cassette deck cleaning supplies.

## SPECIFICATIONS

### RADIO

	<b>FM</b>	<b>AM</b>
Frequency Range	88–108 MHz	530–1710 kHz
IF Rejection	60 dB	60 dB
Image Rejection	20 dB	30 dB
Selectivity	25 dB	20 dB
Signal-to-Noise (S/N) Ratio	60 dB	30 dB
Stereo Separation	22 dB	—
Usable Sensitivity	6 µV	1300 µV/m

### CASSETTE PLAYER

Cassette Mechanism .....	Auto-Stop
Tape Speed .....	1 7/8 ips
Wow and Flutter .....	0.35%
Signal-to-Noise Ratio .....	40 dB
Separation .....	40 dB
Frequency Response ( $\pm 3$ dB) .....	100–8000 Hz

### GENERAL

Power Requirements .....	120V AC 60 Hz
Speaker Size .....	5-Inch Speaker
Speaker Output Impedance .....	4 Ohms
Headphones (Stereo) Impedance .....	16–32 Ohms
Power Output .....	1.5 Watts per Channel
Dimensions (HWD)	
Main Unit .....	9 5/8" x 10 5/8" x 9 1/4" Inches (244 x 270 x 235 mm)
Speaker .....	9 5/8" x 7 1/16" x 9 1/4" Inches (244 x 180 x 235 mm)
Weight .....	13 lb (5.9 kg)

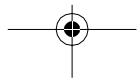
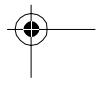
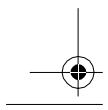
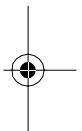
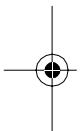
Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

## NOTES

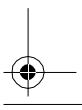
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### RadioShack Limited Warranty

This product is warranted against defects for 90 days from date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your RadioShack sales slip** as proof of purchase date to any RadioShack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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